Remarks

In the final office action dated October 19, 2004 the Examiner rejected claims 1-12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,349,400 to Senshu (hereinafter Senshu). No amendments are presented herein.

With respect to the Examiner's rejections, the Examiner is invited to consider the following remarks.

Independent claim 1 provides for determining the size of the received user data and the amount of the matrix that will be filled by the received user data, and recording error correction codewords segments in an interleave dynamically created to correspond only to the portion of the matrix filled by the user data. Independent claim 7 provides similar limitations. The cited reference, even as modified per the Examiner's suggestion, fails to disclose, teach, or suggest all of the features of the independent claims, and the rejection should be withdrawn.

In particular, Senshu discloses data recording/reproduction such that error correction codes interleaved with respect to the direction of data on a disc are collectively blocked into an error correction unit and the input/output order of user data in an ECC block as an error correction unit is made coincident with the direction of processing of the error correction codes, and coding can be started at the time when necessary data for generating one code is transmitted without waiting for transmission of data for one ECC block (Senshu, Abstract).

Contrary to the Examiner's contention, Senshu fails to provide recording error correction codewords segments in an interleave dynamically created to correspond only to the portion of the matrix filled by the user data. In fact, the ECC block taught by Senshu has a block length equal to the number of sectors times the number of frames times the frame length. (Senshu, col. 6, ll. 14-49). Simply stated, dynamically shortening error correction codewords used in an error correction code, as presently claimed, is not disclosed, taught or suggested by Senshu.

Further, the Examiner admits that Senshu fails to teach determining the size of the user data and the amount of the matrix that will be filled by the received user data. Instead, the Examiner contends that it would have been obvious to one of ordinary skill in the art to modify Senshu to include a determining means to determine the size of the user data before recording. However, nowhere does the Examiner provide evidence for such a teaching other than in the presently pending application. As such, the Examiner has impermissibly used the present application in hindsight to attempt to modify Senshu to piece together the present invention. Therefore, a *prima facie* case of obviousness has not been established and the rejection should be withdrawn.

Further, even if the modification suggested by the Examiner were made to Senshu, the result would not be the presently pending invention. Merely modifying Senshu as suggested by the Examiner fails to provide a matrix that will be filled by the received user data, and recording error correction codewords segments in an interleave dynamically created to correspond only to the portion of the matrix filled by the user data, as presently claimed. One of ordinary skill in the art would understand that merely determining the size of the user data before recording as suggested by the Examiner would not provide an interleave dynamically created to correspond only to the portion of the matrix filled by the user data.

Regarding claims which depend from the independent claims, Applicants contend that these claims are patentable for at least the same reasons that the independent claims are patentable. Moreover, Applicants contend these claims recite further limitations, in addition to the limitations of the independent claims, which render these claims additionally patentable.

Consequently, in view of the above and in the absence of better art, Applicants' representative respectfully submits the application is in condition for allowance which allowance is respectfully requested. No fee is believed to be due for the filing of this paper. Please charge any additional fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

The Examiner is requested to telephone the undersigned to discuss prompt resolution of any remaining issues necessary to place this case in condition for allowance.

Respectfully submitted,

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By_____

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